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EXAMINER

DINH, DUNG C

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 35

Application Number: 09/090,035
Filing Date: June 10, 1998
Appellant(s): HAUPT ET AL.

Michael E. Belk
For Appellant

EXAMINER'S ANSWER

This is in response to the supplemental appeal brief filed
2/9/2004. This replaces the Examiner Answer paper #29.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 1, 3-18, and 20-21 remain pending. Claims 1, 3-12, 20 and 21 are rejected.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

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(7) Grouping of Claims

Appellant's brief includes a statement that claims 1, 3-12, 20 and 21 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3-12, and ^{20-21.}~~21~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamichi (US 5,864,532) in view of Umesaki (GB 0391424).

As set forth in claims 1 and 21, Nakamichi discloses a changer apparatus for information discs, comprising a stacking unit (10 11) for stacking at least two information discs (see col. 17, lines 25-26) in respective stacking positions (P3), a read/write unit for reading information stored on the information discs and/or writing information on the information discs in a play position, an eject position (P4) at which an information disc can be removed from the apparatus and (see fig.1, element 1A is the eject position), transport means for transport of the information discs from the eject position into

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a loading position, the loading position being a position for loading discs from the loading path of the transport means into the stacking positions of the stacking unit and in which the play position is along the loading path between the eject position and the loading position; see col. 17, lines 25-67, and col. 10, lines 40-57 (these sections disclose the relative position of the disk when transporting the disk). As set forth in claims 1, 3, 20 Nakamichi discloses transporting the disk from the entrance (eject position) to the playback/recording position, to the stocking position. Nakamichi does not disclose transporting the disc along a curve-shaped loading path. Umesaki discloses having a curved shape path for transporting the disk, see figs. 3, 6, and 7. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the disk player of Nakamichi a curved shape path for transporting the disk. The rationale is as follows: It would have been desirable to reduce the length of the disk player by providing the means for having a curved shape loading path. One of ordinary skill would have been motivated by the teaching of Umesaki to have modified the transporting system of Nakamichi with the means for providing the a curved transportation path as taught by Umesaki, thereby having provided means for

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transporting the disk that would reduce the overall length of a disk drive.

As set forth in claim 4, Nakamichi discloses an apparatus characterized wherein the play position is disposed on the loading path (P2).

As set forth in claim 5, Nakamichi discloses transport means further including a first transport mechanism for transporting the information discs between the eject position, the play position and the loading position, and a second transport mechanism for transport of the information discs into the stacking positions of the stacking unit, the first transport mechanism being adapted to move the information discs from the loading position in the loading plane and the second transport mechanism being adapted to move the information discs in a stacking direction oriented vertically with respect to the loading plane; see col. 17, lines 25-67 (discloses the stocking elements of the disk player).

As set forth in claim 6, Nakamichi discloses an apparatus wherein the first transport mechanism includes at least a first and a second guide (1002 and 1003) for the disc edge of the information disc, the first guide includes a groove for supporting the disc moving along the loading path and the first guide is movable in the loading plane (1003, discloses a groove

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11), the second guide includes at least one rotationally drivable transport wheel for driving the disc to move along the loading path (fig. 3, has transport wheels 7 and 15).

As set forth in claim 9, Nakamichi discloses an apparatus wherein the read/write unit (1006) is movably supported on a chassis plate of the apparatus; see col. 11, line 55-col.13, line 13.

As set forth in claim 10, Nakamichi discloses wherein the read/write unit (1006) includes a base plate and a laser mounting plate, the base plate (40) and the laser mounting plate are coupled by means of dampers, the base plate (40) is slidably mounted on the chassis plate, and the laser mounting plate carries an optical unit (1006) for reading information stored on the information disc and a clamping device for clamping the information disk in the play position so the read unit isolated from vibrations of the chassis, see col. 11, line 55-col. 13, line 13.

As set forth in claim 11, Nakamichi discloses an apparatus characterized wherein the read/write unit (1006) is movable into the play position in the vertical direction. See col. 11, line 55-col.13, line 13; see col. 13, lines 14-60.

Nakamichi does not disclose the guide mechanism having pivotal arms for usage with the curve shaped path. However

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Nakamichi discloses a passive and moving guiding mechanism (see figs. 3 and 4). As set forth in claims 7, 8 and 12, it would have been obvious to have utilized arm guides for the transport of the disk. Uniesaki discloses the usage of pivotal guide arms in the loading of the disk. It would have been obvious to one of ordinary skill in the art to have provided pivotal guide arms for the loading of disks, as taught by Umesaki, to the disk player as taught by Nakamichi. The rationale is as follows: It would have been desirable to have provided means for guiding the disk. As Umesaki teaches the desirability of using pivotal arms, one of ordinary skill would have been motivated by Umesaki's teaching to have provided arms to the disk player, as taught by Nakamichi, thereby having provided an equivalent means for guiding the disk into the reproduction and loading positions along a curved path.

Official notice is taken regarding claim 20, with regards to having an overall depth of the apparatus is less than or equal to approximately 1.5 times the information disk diameter. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have constructed the disk player in a size readily marketable. The rationale is as follows: It would have been desirable to have constructed a disk player that was relatively small for easy storage, etc. As

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constructing disk players to be small is well known in the art. One of ordinary skill in the art would have been motivated to have constructed the disk player as taught by Shindo, to have an overall depth of the apparatus less than or equal to approximately 1.5 times the information disk diameter thereby having provided a small sized disk player.

(11) Response to Argument

Applicant's main difference from the prior art is the existence of the play position between the eject and loading position (the loading position being where the disks are loaded into the holder compartments) found in the player. In order to address this issue the Examiner used Nakamichi, which discloses a standard disk player system wherein the play position is located on a path between the eject and loading position. Umesaki discloses a disk player where the path for loading the disk is curved, thereby reducing the overall length of the disk player. Umesaki also discloses the transporting mechanism needed to perform this curved path transporting, i.e. the pivotal guide arms. In addressing the claims the Examiner contends that it would have been obvious to have modified Nakamichi with its traditional structure, that provides for storing multiple disks,

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with the Umesaki's teaching of using a curved path for loading that would reduce the overall shape of the disk player.

Applicant first addresses the rejection of claim 1, by pointing to the definition of "curve-shaped loading path" found in the specification at page 1, lines 22-27. Applicant's stress that this definition of a "curve-shaped loading path" is not met by Umesaki. Applicant states that "the portion of the movement from the loading position to the play position is not "a lateral relative movement." Stating that the "disc in Umesaki moves both horizontally as well as vertically to move from the loading position to the play position." The same argument is presented for the "third path" found in Umesaki. First the Examiner notes that the claim states that it is a "curve-shaped loading path" This path can be clearly seen in figs. 6 and 7 of Umesaki. Umesaki clearly meets any common-sense definition of what a "curve-shaped loading path" is. Even if the disk moved both in a horizontal and vertical direction while performing the overall curve-shaped path, the limitation of the claim is met. However, the Applicant argues that it is the definition found in the specification of what a "curve-shaped loading path" is that is not met by Umesaki. The Examiner notes that the definition is broad and covers that which is found in Umesaki. Performing a "lateral relative movement" can encompass both movement in the

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horizontal and vertical directions, as long as the overall direction is lateral. Applicant is arguing the lack of the curve-shaped path by parsing the different steps in Umesaki to point to various areas where the disk is moved through the disk player and then saying this is a not part of the curved path, this is analogous to taking Applicant's instant invention and pointing to the part where the disk is moved from the stacking position, or where the disk is clamped in the player, and stating that since this constitutes some vertical movement the path is not curve-shaped. The Examiner maintains that the claimed limitation is met, and also contends that specified definition is met as well, since that definition is broad in its scope and does not, as applicant argues, negate the Examiner's contention that Umesaki has a curved-shaped path.

Applicant argues that the Examiner has used impermissible hindsight with respect to claim 1. The Examiner maintains that the teaching of Umesaki would have been desirable to one of ordinary skill in the art since it teaches the construction of a disk player that would be smaller overall. This is something that is always desired in this art, and one of ordinary skill in the art in looking, for a way to modify Nakamichi to accomplish this goal of size reduction. The Examiner further contends that the combination would not destroy the teaching of the

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references, it would merely require a restructuring of the loading mechanism of Nakamichi to accomplish curve shaped loading. Such a restructuring would require different transport tools, such as the pivotal arms, but overall the basics of the disk players would not be destroyed as asserted by the Applicant.

Applicant argues that Nakamichi does not meet the limitations of claim 3, the Examiner never states that it does. Instead the Examiner addressed claim 3 in the 103 rejection. The limitation of claim 3 is necessarily met by having a curve-shaped path as found in Umesaki.

Applicant argues with respect to claim 4, that Nakamichi does not disclose having the play position along the loading path. Nakamichi does, see (P2). The usage of the teaching of the curve-shaped path by Umesaki would not require the removal or changing of the loading and playing positions found in Nakamichi since there is no criticality to having the play position be before or after the loading position.

Applicant's argue the aspects of claim 5 for the same reasons found in arguing claim 1.

Applicant argues with respect to claim 6, that the disk element 11 is not movable in the loading plane. The Examiner notes that element 11 is part of the belt system that moves the

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disk in the transport direction and is attached to element 81R which moves the disk and itself moves in the loading plane (see fig. 4). Thus element 11 "is movable in the loading plane."

Furthermore, the wheels move the disk through the propulsion of the belt. Nothing in the claims precludes such an interpretation of that claim. Therefore the limitations of claim 6 are met.

Applicant argues claim 7, for the same reasons that claim 1 is argued. Applicant further states that the arms are not pre-loaded. The Examiner disagrees as the arm in Umesaki is pre-loaded in the sense that is where it is at the time prior to loading. Umesaki appears to meet the limitation of the claims, since no specialized meaning is given to the term "pre-loaded."

Applicant argues that claim 8 is not met since the first and third guides do not share the same pivot. The Examiner points to elements 12b and 12c (which are both guides, and can be called the first and third guide) which share the same pivot.

Applicant argues that the elements of claim 9 are not met because the read/write unit is not movably supported on a chassis plate of the apparatus. Applicant argues that the read/write unit is not directly mounted on the chassis plate, and that several intermediate objects exist between the plate and the unit. The Examiner contends that the claim does not require the mounting of the read/write unit directly on the

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plate, and indeed such a mounting would be unwise due to vibrations. However, the Examiner maintains that the limitation of this claim is met as nothing precludes the existence of mechanisms that make the journey of the unit safer.

Applicant argues that claim 10 is not met, and that the construction used by Applicant is novel. The Examiner merely contends that the limitations of the claims are met, and that each element is met. See the rejection. Applicant does not state where the references fail in meeting the limitations of the claim.

Applicant argues that claim 11 is not met by Nakamichi. The Examiner points to col. 13, lines 14-67. Clearly the read/write unit moves in a vertical direction. The Examiner is unclear as to how the Applicant can argue that it does not, the reference clearly states, "a vertical transport mechanism 1007, raises and lowers base 40, with the attached optical mechanism 1006."

Applicant argues claim 12. The Examiner contends that the combination of Nakamichi and Urnesaki would provide the necessary teaching for controlling guide arms, and that the movement away from the disk during play is a necessary function in order for the disk player to function. Typically this in response to the movement of the optics unit to engage the disk. Nothing novel exists in this claim.



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Applicant argues that claim 20 is not met by the references. Applicant argues that since the players used by the Examiner can accommodate different sized discs that the overall depth of the apparatus cannot be dependent upon the disc diameter. The Applicant argument is flawed in that neither the Applicant' nor the Examiner's cited references, have an overall depth dependent upon the disc diameter. The claim merely refers to a suggested depth of the apparatus. It is that depth that is being claimed, not the discs. Therefore, the depth of players used by the Examiner merely need to be 1.5 time the diameter of the largest disc that the player plays. This is easily met by the references provided.

Applicant argues claim 21 in the same fashion that claim 1 is argued.

Applicant has argued all of the claims. Despite the references meeting some limitations clearly (such as the curve-shaped path), it was still argued. The Examiner has attempted to address all of the arguments. The Examiner believes that the limitations of the claims have been met. For the above reasons, it is believed that the rejections should be sustained.

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Dung C. Dinh
Primary Examiner 

Respectfully submitted,

Tod Kupstas

March 13, 2004

Conferees:

Dave Davis (signature in paper #29)

Brian Miller (signature in paper #29)

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